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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/696,674 | 10/27/2003 | Dirk Luthardt | (Z) 01049 P US | 6818 |
| 7590 | 04/05/2005 | | EXAMINER | |
| M. Robert Kestenbaum 11011 Bermuda Dunes NE Albuquerque, NM 87111 | | | CONSILVIO, MARK J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2872 | |

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|--|
| | 10/696,674 | LUTHARDT ET AL. | |
| | Examiner | Art Unit | |
| | Mark Consilvio | 2872 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-13 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 07 February 2005 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/15/2004.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Germany on April 27th, 2001 and October 27th, 2001. It is noted, however, that applicant has not filed a certified copy of these German applications as required by 35 U.S.C. 119(b).

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 11/15/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the input portion of claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 44, 32.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1 recites the limitation, “particularly pocket binoculars.” However, such language does not clearly define the scope of the claim and should, therefore, be removed. Appropriate correction is required.

Claim 4 is objected to because of the following informalities: The word, “internal,” should be replaced by, “internally,” for proper grammatical form.

Claim 9 is objected to because of the following informalities: The word, “displacement,” should be replaced by, “adjustment,” for proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Akagi et al. (US Patent No. 5,235,458).

With respect to claim 1, Akagi et al. discloses binoculars with a rotary element (G1) by the actuation of which axially displaceable lenses (11, 12) are displaced for focusing, wherein the

rotary movement introduced by the rotary element (G1) is converted into a rotary movement with a greater rotation angle by means of a gear transmission stage (23, 37) (fig. 11).

With respect to claim 8, Akagi et al. shows a rotary element (G1), by the actuation of which axially displaceable lenses are displaced for focusing, wherein a central adjustment shaft (37) is provided which executes, on actuation of the rotary element (G1), an axial movement which corresponds to the axial movement of the lenses (11, 12) (fig. 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altenheiner et al. (US Patent No. 4,630,901) in view of Wilkinson (US Patent No. 3,019,705) and Kamkura (US Patent No. 4,171,865).

With respect to claim 1, Altenheiner et al. discloses binoculars with a rotary element (1) by the actuation of which axially displaceable lenses are displaced for focusing, wherein the rotary movement introduced by the rotary element (1) is converted into a rotary movement by means of a gear transmission stage (1, 2, 17, etc...) (fig. 1). Altenheiner et al. does not expressly disclose the rotary element (1) converts rotary movement with a greater rotation angle.

Wilkinson teaches a focusing system with a rotary element (42) converts rotary movement with a greater rotation angle by means of a gear transmission stage (33) (fig. 3). Kamakura teaches that

a gear transmission stage similar to that of Wilkinson can be used in binoculars for axial displacement of lenses (fig. 4B). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Altenheiner et al., Wilkinson, and Kamakura to use a gear transmission stage taught by Wilkinson in the binoculars taught by Altenheiner et al. to allow advantageously finer focusing adjustment through the rotary element.

With respect to claims 2 and 3, the combination as stated *supra* suggests or discloses all the limitations of claim 1. Further, Wilkinson teaches an input portion of the gear transmission stage (33), and wherein on rotation of the rotary element (42) a drive takeoff portion (40) of the gear transmission stage (33) turns through a different the angular path. While Wilkinson is silent as to the particular gear ratio, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings above to provide the angular path as detailed in claims 2 and 3. One of ordinary skill would understand that this ratio is a matter of design choice depending on the desired “feel” in relating the rotary motion of the adjustment knob to the specific axial movement of the lenses.

With respect to claims 4 and 5, Wilkinson further discloses that the gear transmission stage (33) comprises a sun wheel (53) that is connected to the rotary element (42). The combination does not disclose an internally and externally toothed ring. However, such rings are well known parts of planetary gearing systems. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the combination to provide an internally and externally toothed ring connection. One of ordinary skill in the art would have

been motivated to do this to allow a further gear reduction ratio “promoting smooth operation of the planetary gearing while avoiding backlash” (Wilkinson col. 4, lines 20-22).

With respect to claim 5, Wilkinson et al. discloses the gear transmission stage (33) comprises a spur gearing or a planetary gearing, the planet wheels of which are mounted stationary and rotatably. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to particularly use the planetary gearing system of Wilkinson. One of ordinary skill in the art would have been motivated to do this since, “this arrangement reduces disturbing vibration which tends to arise from the rolling of the orbital gears through their orbits, and accomplishes a drive...through planetary gearing with the smoothness of “feel” which characterizes the best fine adjustment mechanism” (col. 3, lines 4-10).

With respect to claim 6, Altenheiner et al. further discloses the gear transmission stage is arranged in the rotary element (1) (fig. 1).

With respect to claim 7, Altenheiner et al. shows the drive takeoff portion of the gear transmission stage is fixedly connected to a shaft extension (fig. 1).

With respect to claim 8, Altenheiner et al. shows a rotary element (1), by the actuation of which axially displaceable lenses are displaced for focusing, wherein a central adjustment shaft (17) is provided which executes, on actuation of the rotary element (1), an axial movement which corresponds to the axial movement of the lenses (fig. 1).

With respect to claim 9, Altenheiner et al. shows the adjustment shaft (17) is arranged on a hinge shaft of the binoculars (fig. 3).

With respect to claim 10, Altenheiner et al. shows the adjustment shaft (17) is mounted, displaceable axially, in a hinge bushing (figs. 3 and 4).

With respect to claim 11, Altenheiner et al. shows the adjustment shaft (17) is provided with a rotation securement (3).

With respect to claim 13, Altenheiner et al. shows the adjustment shaft (17) is in operative connection with a shaft (opposite 17) of a diopter compensation (10) (fig. 1).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altenheiner et al. (US Patent No. 4,630,901) in view of Wilkinson (US Patent No. 3,019,705) and Kamkura (US Patent No. 4,171,865) in further view of Miller et al. (US Patent No. 6,266,185).

With respect to claim 12, the combination as stated supra suggests or discloses all the limitations of claims 1, 4, and 7. The combination does not expressly disclose the adjustment shaft is provided at both ends with a helical gearing. Miller et al. teaches that helical gears may be used in binocular focusing systems to convert rotary motion of a focusing knob into axial displacement of a lens or lenses (col. 4, lines 42-51). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to particularly use a helical gearing system of Miller et al. at both ends of the adjustment shaft for focusing and diopter adjustment. One of ordinary skill in the art would have been motivated to do this to minimize the number and size of drive parts allowing a compact and light-weight focusing system (col. 2, lines 63-64).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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